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10/510,398	10/05/2004	Alexander Maass	10191/3574	3131

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EXAMINER
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NGUYEN, CHUONG P

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**MAILED**

DEC 12 2007

Application Number: 10/510,398  
Filing Date: October 05, 2004  
Appellant(s): MAASS, ALEXANDER

**GROUP 3600**

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Gerard A. Messina  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 09/14/2007 appealing from the Office action  
mailed 12/07/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

WO 00/54008	BREED ET AL	9-2000
6,370,474	HIWATASHI ET AL	4-2002
6,487,501	JEON	11-2002
6,675,094	RUSSEL ET AL	1-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 15, 16, 18, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Breed et al (WO 00/54008).**

Regarding claim 15 and as best understood by the Examiner, Breed et al disclose a method for at least one of providing driver information and performing a vehicle intervention when leaving a traffic lane comprising: recording at least one boundary of the traffic lane (page 6, lines 17-25; lines 38-39; page 7, lines 20-22; lines 37-39; page 8, lines 1-3; page 16, line 32 – page 17, line 5; page 23, line 25 – page 24, line 14); determining an anticipated track (i.e. exit a congested highway; attempt to run off the roadway at high speed) of a vehicle taking into account future, anticipated path correction by the driver (i.e. driver control the vehicle to stay within corridor; driver's intent to exit a congested highway) (Fig 4 "14"; page 4, line 31 – page 5, line 5; page 6, lines 17-25; page 9, lines 4-13; page 31, lines 22-24; page 32, lines 10-19; page 38, lines 6-14); deriving at least one of the driver information and the vehicle intervention from the at least one boundary of the traffic lane and the anticipated track of the vehicle (Fig 7 "50";

Fig 8 “68”; page 6, lines 17-25; page 38, line 24 – page 39, line 10); and at least one of providing the driver information when the vehicle one of leaves the traffic lane and threatens to leave the traffic lane; and performing the vehicle intervention when the vehicle one of leaves the traffic lane and threatens to leave the traffic lane (Fig 7 “50”; Fig 8 “68”; page 5, lines 13-16; page 6, lines 17-25; page 38, line 24 – page 39, line 10).

Regarding claim 16, Breed et al disclose the anticipated track of the vehicle is determined based on a future, anticipated steering reaction away from side markings of the traffic lane (Fig 4 “14”; page 4, line 31 – page 5, line 5; page 6, lines 17-25; page 9, lines 4-13; page 31, lines 22-24; page 38, lines 6-14).

Regarding claim 18, Breed et al disclose at least one boundary is recorded using an image sensor system (page 6, lines 33-39; page 23, lines 37-39).

Regarding claim 21, Breed et al disclose the vehicle intervention including an automatic intervention in steering in response to a threatened leaving of the traffic lane (page 5, lines 13-16; page 8, lines 29-31; page 19, lines 15-18).

**Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breed et al as applied to claim 15 above, and further in view of Hiwatashi et al (6,370,474).**

Regarding claim 19, Breed et al lack the method of determining a left future track of the vehicle and a right future track of the vehicle and comparing the left future track and the right future track to left edge marking and right edge markings of the traffic lane. Hiwatashi et al teach in the same field of endeavor the method of determining a left future track of the vehicle and a right future track of the vehicle and comparing the left future track and the right future track to left edge marking and right edge markings of the vehicle (Fig 2 & 3; col 4, lines 23-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the determination of a vehicle tracks and comparison between the tracks and the edge markings of the vehicle as taught by Hiwatashi et al in the method of Breed et al for preventing traffic accident and enhancing the driver assistance system.

**Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breed et al as applied to claim 15 above, and further in view of Jeon (6,487,501).**

Regarding claim 22, Breed et al disclose the method of determining a variable representing attentiveness of the driver, providing an extent of a warning of the driver based on the variable (page 31, lines 22-24; page 37, lines 21-30) and determining at least one of the track of the vehicle (Fig 4 “14”; page 4, lines 33-39). **Note:** Examiner believes that Breed et al disclose the method of determining a future steering correction by the driver that is used to determine at least one of the track of the vehicle (page 4, line 31 – page 5, line 5; page 6, lines 17-25; page 31, lines 2-12). However, if this is not the case then Jeon teaches in the same field of endeavor the method of determining a future steering correction by the driver (i.e. driver’s intention to control steering (Fig 6 “S140, S150; col 3, lines 7-12; col 5 – col 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method of determining a future steering correction by the driver as taught by Jeon in the method of Breed et al for better accuracy in determining a track of a vehicle, preventing traffic accident, and enhancing the driver assistance system.

**Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed et al as applied to claim 15 above, and further in view of Russell et al (6,675,094).**

Regarding claims 23 and 24, Breed et al lack the determination of a future track of the vehicle based on the course of the vehicle in the past. Russell et al teach in the same field of endeavor the method of determining a future track (i.e. path prediction) of the vehicle based on the course of the vehicle in the past; wherein the course of the vehicle in the past is determined at least one of from at least one of the yaw rate and the steering angle and using the steering movements of the driver (Abstract; Summary Of The Invention, col 2-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method of determining a future track as taught by Russell et al in the method of Breed et al for better accuracy in tracking a vehicle path, preventing traffic accident, and enhancing the driver assistance system.

While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

#### **(10) Response to Argument**

Applicant's arguments with respect to 35 U.S.C 112, first paragraph have been fully considered and are persuasive. The rejection under 35 U.S.C. 112, first paragraph of claims 15, 16, 18, 19, 21-24 has been withdrawn.

**Applicant argues that the prior art of Breed et al (WO 00/54008) do not teach or suggest "determining an anticipated track of a vehicle taking into account a future, anticipated path correction by the driver" as recited in claim 15.**

Examiner disagrees because as cited in the grounds of rejection above, Breed et al do disclose an anticipated track (i.e. exit a congested highway; attempt to run off the roadway at high speed) of a vehicle taking into account a future, anticipated path correction by the driver (i.e. driver control the vehicle to stay within corridor; driver's intent to exit a congested highway) thus it meets the claim limitation.

**Applicant argues that the prior art of Hiwatashi (6,370,474) does not teach or suggest “determining a left future track of the vehicle and a right future track of the vehicle and comparing the left future track and the right future track to left edge marking and right edge markings of the vehicle” as recited in claim 19.**

Examiner disagrees for the following reasons: Applicant argues that the art of Hiwatashi do not teach the claim limitation individually instead of addressing the combining arts as a whole (i.e. Breed in view of Hiwatashi). Since prior art of Breed et al disclose the future tracks (i.e. exit a congested highway; attempt to run off the roadway) (page 4, line 31 – page 5, line 5; page 6, lines 17-25) and Hiwatashi teaches in the same field of endeavor of determining and comparing the tracks with the edge markings of the vehicle; thus motivation to combining the art to cure the deficiencies and obtaining the predictable results are within level of one having ordinary skill in the art.

**Applicant argues that the prior art of Breed et al (WO 00/54008) in view of 6,487,501 do not teach or suggest “determining a variable representing attentiveness of the driver; and determining a future steering correction by the driver” as recited in claim 22.**

Examiner disagrees because as cited in page 31, lines 21-24 of Breed et al - “senses the result of the action of the operator, which could occur for a variety of reasons including old age,




drunkenness, heart attacks, drugs as well as falling” does imply to the claim language of “determining a variable representing attentiveness of the driver”. Also, Examiner believes that Breed et al disclose the method of determining a future steering correction by the driver that is used to determine at least one of the track of the vehicle. However, if this is not the case then Jeon teaches in the same field of endeavor the method of determining a future steering correction by the driver (i.e. determining if the driver intent to control steering). Thus, Examiner has met the burden by showing that the references of Breed et al in combining with Jeon, do clearly teach every limitation as claimed.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

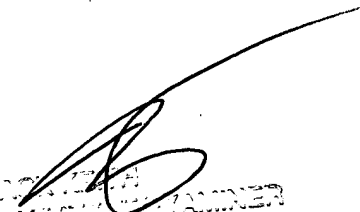
Respectfully submitted,

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